

WHAT IS CLAIMED IS:

[C1] A contact switch comprising:

a first contact provided on a substrate,

a second contact to be closed or opened with the first contact, and

a plurality of signal lines provided on the substrate, insulated with each other, and connected when the first contact and the second contact are closed, wherein a film thickness of the first contact is smaller than that of the signal line.

[C2] The contact switch according to claim 1, wherein the first contact is formed of a first electrically conductive layer, and the signal line is constituted by sequentially laminating the first conductive layer and a second conductive layer capable of being conducted to the first conductive layer.

[C3] The contact switch according to claim 2, wherein the first conductive layer and the second conductive layer are formed of different materials.

[C4] The contact switch according to claim 1, wherein a total of the film thickness of the first contact and a film thickness of the second contact is at least a skin depth depending on a frequency of an electric signal passing through the signal line.

[C5] The contact switch according to claim 4, wherein the film thickness of the first contact is not more than the skin depth depending on the frequency of the electric signal passing through the signal line.

[C6] The contact switch according to claim 1, wherein the plural number of the first contacts are formed on the substrate, an electrode insulated from the second contact is provided between the plural first contacts, and the second contact has a configuration in which an insulating state between the second contact and the electrode is maintained when the first contacts and the second contact are closed.

[C7] The contact switch according to claim 1, wherein an upper surface of a conductive film constituting the second contact and an upper surface of the signal line have almost the same height when the first contact and the second contact are closed.

[C8] An apparatus provided with a contact switch having a first contact provided on a substrate,

a second contact to be closed or opened with the first contact, and

a signal line provided on the substrate, insulated with

each other, and connected when the first contact and the second contact are closed, in which a film thickness of the first contact is smaller than that of the signal line and by which a signal is opened and closed.